APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,289	01/12/2001	Kouji Yoshida	201976US2	8626

22850 7590 07/29/2004		EXAMINER
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.		RIMELL, SAMUEL G
1940 DUKE STREET		

ART UNIT	PAPER NUMBER
2175	

ALEXANDRIA, VA 22314

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *59-68, 78-89, 95-104 and 116* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *59-68, 78-89, 95-104, 116* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Preliminary Notes: Examiner notes that there are no certified copies of the foreign

priority documents upon which foreign priority is based. Applicant is required to provide copies

of the foreign priority documents in response to this office action.

Response to Requirement for Restriction:

In response to the restriction requirement of April 6, 2004, applicant has elected Group I,

composed of claims 58-68, 78-89, 95-104 and 116. Claim 58 has been cancelled, so the elected

group is 59-68, 78-89, 95-104 and 116. Applicant has elected with traverse, arguing that the

restriction does not establish undue burden on the examiner. The restriction requirement of April

6, 2004 establishes that the inventions are independent and distinct and require separate areas of

search. Examining two separate inventions that are patentably distinct and require separate areas

of search is considered to present a burden on the examiner, and thus the requirement for

restriction is maintained and made final.

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

Claims 59-68, 78-83, 85-86, 88-89, 95-98, 100, 102-104 and 116 are rejected under 35

U.S.C. 101 because the claimed invention lacks patentable utility.

Claims 59-68, 78-83, 85-86, 88-89, 95-98, 100, 102-104 and 116:   Each of these claims

are directed to data classification and grouping techniques using various forms of statistical

analysis. Accordingly, these claims are directed solely to the manipulation of abstract ideas and

thus are not concrete or tangible. Accordingly, these claims lack utility under 35 USC 101. See

MPEP 2106, Section A; *In re Warmerdan* 33F.3d 1354, 1360, 31USPQ2d 1754, 1759 (Fed. Cir.

1994); and *In re Schrader* 22F 3.d 295, 30USPQ2d 1459.   Note that claims 84, 87, 99, 101 and

103 are not rejected under this statute.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 59-68, 80, 84, 87, 95-104 and 116 are rejected under 35 U.S.C. 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Claim 59: The last paragraph refers to "a form of data division to said first number of

sets is changed". First, it is not clear what the "form of data division" refers to. Secondly, it is not

clear how this "form" is changed, or what exactly constitutes such a change. In the same

paragraph, the phrase "the respective classification sets" and "said first number of classification

sets" lack antecedent basis.

Claim 61: The preamble of claim 61 refers to the invention as "calculating the sum of

degrees of randomness". However, none of the steps of this claim involve summation of degrees

of randomness.

Claim 63: The last paragraph states "while a form of data division to said second number

of sets is changed". First, it is not clear what the "form of data division refers to". Second, it is

not clear how this "form" is changed or what exactly constitutes such a change.

Claim 65: The preamble of claim 65 refers to the invention as "calculating the sum of

degrees of randomness". However, none of the steps of this claim involve summation of degrees

of randomness.

<u>Claim 67</u>: The last line of claim 67 refers to "forms of data division by said first data dividing unit". It is not clear what these "forms of data division" actually are or what they actually represent.

<u>Claim 68</u>: The last line of claim 68 refers to "forms of data division by said second data dividing unit". It is not clear what these "forms of data division" actually are or what they actually represent.

<u>Claim 80</u>: Claim 80 includes the phrase "while changing a form of data division with said boundary candidate". It is not clear what the "form of data division" actually is or what it actually represents.

<u>Claim 84</u>: The phrase "the respective pixels" lacks antecedent basis.

<u>Claim 87</u>: The phrase "the respective pixels" lacks antecedent basis.

<u>Claim 95</u>: Claim 95 refers to a "second number of sets" of data values without ever referring to a first number of sets being established. The claim refers to "a third number of boundary candidates" without ever establishing a second number of boundary candidates. The claim further refers to a fourth number of sets without ever establishing a third number of sets. The claim further refers to an "extraction condition" without ever reciting a step of extraction. As a result, it is not clear how many boundary candidates and how many sets are required. It is also not clear whether any extraction process takes place or not. Claim 95 is so confusing as to be essentially incomprehensible.

<u>Claim 99</u>: The phrase "the respective pixels" lacks antecedent basis.

<u>Claim 102</u>: Claim 102 refers to a "third number of boundary candidates" without ever establishing a "second number of boundary candidates". The claim further refers to a "second

number of sets" and "fourth number of sets" without ever establishing a first number of sets or a

third number of sets. Furthermore, the claim makes reference to an "extraction condition"

without defining any mechanism which is capable of performing extraction. Claim 102 is so

confusing as to be essentially incomprehensible.

Claim 104: The phrase "the respective pixels" lacks antecedent basis.

Claim 95 and its dependent claims 96-101, as well as claim 102 and its dependent claims

103-104 appear to be incomprehensible as presented. Accordingly, these claims cannot be further

examined in light of the prior art of record.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 78, 79, 83, 84, 85, 87, 88, 89 and 116 are rejected under 35 U.S.C. 102(b) as

being anticipated by Fishkin et al. (U.S. Patent 5,841,437).

Claim 78: FIGS. 5, 6A and 6B of Fishkin et al. disclose two dimensional scatterplots of

census data. In FIG. 5, each square represents a set of census data for a specific city, and the

collection of squares in FIG. 5 represent a first set of data. In FIGS. 6A and 6B the first sets are

subdivided into smaller second sets of squares, based on characteristics such as taxes and

average annual pay.

Claim 79: FIG. 5 is the first set of data. It meets the predetermined condition of being

census data. As seen in FIGS. 6A and 6B, the average annual pay window defines a first

boundary candidate (the boundary candidate is a level of average annual pay). This boundary

candidate divides the first data group of FIG. 5 into a smaller group. The second boundary

candidate is per capita taxes (the boundary candidate is the level of per capita taxes. This second

boundary candidate further divides the data into an even smaller group. This smallest of groups

becomes the second data set.

Claim 83: Other predetermined conditions may exist beyond just the condition of having

data as census data. For example, in FIG. 10, values equal to the five predetermined cities are

extracted from the display.

Claim 84: Each of the data points, as well as the predetermined data are the result of

image pixel data (col. 9, lines 45-47). that are picked up by the graphical user interface that

displays the data.

Claim 85: In FIGS. 6A and 6B, the extracted data sets are those boxes which are

highlighted in black. The "average annual pay" is the calculated average data value within the

sets. This average value is then used to further divide the data sets into smaller sets.

Claim 87: The images in FIGS. 5, 6A and 6B are the result of pixels (col. 9, lines 45-

47) having some degree of luminance which are picked up and displayed by the graphical

interface.

Claim 88: See remarks for claim 79.

Claim 89: Each square in FIGS 5-6B represent a data point. The original set in FIG. 3 is

not less than three. In FIG. 6A, the number of data points that are left after the dividing is two.

Claim 116: See remarks for claim 89.

Any inquiry concerning this communication should be directed to Sam Rimell at telephone number (703) 306-5626.

Sam Rimell
Primary Examiner
Art Unit 2175